

Work Order ID 154616

154616

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Friday, December 16, 2016 10:05:33 AM

Item ID: D412-742-013 REPAIR Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Skidtube Fits LH or RH High Gear, DART (Apical) Tri-Bag Float Compatible
Start Date: 12/15/2016 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 12/16/2016 Req'd Qty: 1.00 *1* Customer: CBELL02
Reference: RMA RA112433

Approvals: Process Plan: ME Date: 16-12-16 Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
IIN D412-742	E								

100

0.00

100

QC

Quality Control

Memo

0.00

INSPECT RA112433
D412-742-013 X 1 B146568

CUSTOMER HAD TROUBLE INSTALLING GROUND HANDLING LUG
DUE TO MISSALIGNED HOLES

AFTER INSPECTION, IT WAS FOUND THAT IT WAS ONLY AN
INSTALLMENT ISSUE

DAS
21
9-89
DEC 20 2016
① 16-12-16
DAS
9
9-89

B154616

DART aerospace				1270 ABERDEEN ST. HAWKESBURY ON, CANADA K6A 1K7 TEL 1 613 632 5200 www.dartaero.com	
PATENT	US #5735484 / CA #2222184 / EURO #0828655				
P/N	D412-742-013	CHG	CHG009		
DESC.	Float Skidtube	STC	SR01583SE		
LOT	B146568	STC	SH05-37		
MODEL	Bell 205/210/212/412/AB412	STC			
TC APPROVAL # 09-89		MADE IN CANADA		D2729-4	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								 DVE	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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Accept

Setup Start *NS1*

Stop ***NS2***

Stop ***NS2***

Cust Item ID:

Customer: CBELL02

Run Start *NR1*

Stop ***NR2***

Stop ***NR2***

0.00

0.00

Memo

D4095-043 WAS REMOVED BY QUALITY AND WAS ABLE TO ALIGN
HOLES SO THAT BUSHING FOR GROUND HANDLING FIT

***RE-INSTALL D4095-043 MAKING SURE HOLES ALIGN**

D2646 AND D4095-043 WAS DAMAGED DUE TO POOR PACKAGING
SCRAP AND REPLACE WITH NEW D2646 X 1 B 149740

REWORK BY HAND D4095-043 TO IT'S ORIGINAL POSITION PD.

QC5- Inspect part completeness to step on W/O

0.00

0.00

Memo

Quality Control

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Item ID: D412-742-013 REPAIR Accept ***N900040100*** Setup Start ***NS1***
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Start Date: 12/15/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 12/16/2016 Req'd Qty: 1.00 ***1*** Customer: CBELL02
Reference: RMA RA112433

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo ADD NEW PAPERWORK ID AND STOCK @ CHG 009	0.00 0.00				DAS 28 9-89	DAS 27 9-89		DEC 20 2016
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00				DAS 21 9-89		DEC 20 2016	ME 16-12-20

Picklist Print

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Work Order ID: 154616

154616

Parent Item: D412-742-013 REPAIR

D412-742-013 REPAIR

Parent Item Name: Skidtube Fits LH or RH High Gear, DART (Apical) Tri-Bag Float Compatible

Start Date: 12/15/2016

Required Date: 12/16/2016

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2646		Manufactured	No				Each	41.0000		1			
-------	--	--------------	----	--	--	--	------	---------	--	---	--	--	--

D2646

Aft Cap

del 12/12/16

Location

Loc Qty

Loc Code

FG

4

85848

2

90495

2

FP001

37

127924

1

136885

3

141214

8

149748

25

D412-742-013 REPAIR

Manufactured No

Each

0.0000

D412-742-013 REPAIR

Skidtube Fits LH or RH High Gear, DART (Apical) Tri-Bag Float Compatible

xl

1

1x. 1465688

mf

16-12-16

DAS
27
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :						
Misidentified	☐	Past Due	☐							

Inspection Sheet Complete RA112433

Customer QA Ref # Bell NCR M0000297036

Part Number	Batch / Serial #	Quantity	Part Complete	Rev/CHG Current	New Paperwork	New Labels	Disposition	Work order #	Work order instructions
D412-742-013 Repair	B146568	1	☒ Yes	☒ Yes	☒ Yes	☒ Yes	DAMAGED/REPAIRABLE	154616	Tube was return because customer had trouble installing ground handling lug due to misalign holes. After inspection of skid it was found that it was only an installment issue. D4095-043 was remove by quality and was able to align holes so that bushing for ground handling fit. D4095-043 will need to be reinstall making sure ground handling holes align. It was also notice that aft cap D2646 and wearplate D4095-043 was damage due to poor packaging of skidtube Scrap and replace damage D2646 Rework by hand damage D4095-043 to its original position. Inspect D412-742-013 for completion of kit I.D. D412-742-013 with new batch at CHG 009 Add new labels and paper work
0	0	0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
0	0	0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
0	0	0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
0	0	0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			
0	0	0	☐ Yes	☐ Yes	☐ Yes	☐ Yes			

QC Approval: P.D. _____

Date: 15.12.2016 _____

DEC 22 2016  7

DATE		NUMERO RDM / MOR NUMBER		QUALITE / QUALITY
5 DEC 2016		M% 297036		
NO. PIECE / PART NO.		QTE / QTY		
41C 4777-00033		FLOAT		
D412-742-013		SKOTUBE 1		
REMARQUES / REMARKS				
NCR TRANSIT-CFA (INSTL WAS FOR 41C 37024)				
MISMATCH BTW INNER + J671332				
BHTC404.1 (04/03)		OUTER TUBES		INSCRIRE N°S AU VERSO

* New Parts for Assembly:

Qty:	PART NO:	Batch no:
10 x	AN5C-7A (bolts)	M131320
4 x	AN3C-6A (bolts)	M136295
10 x	NAS1149C0532R (washers)	M135390
4 x	NAS1149C0332R (washers)	M136301
1 x	D2646 (END CAP)	B149748

21 16/12/12 (X)